A NEW SPECIES OF BICOLOURED *ELEALE* NEWMAN (COLEOPTERA: CLERIDAE) FROM THE NORTHERN TERRITORY

JUSTIN S. BARTLETT

Entomology Collection, Queensland Primary Industries & Fisheries, Department of Employment, Economic Development & Innovation, 80 Meiers Road, Indooroopilly, Qld 4068 (Email: justin.bartlett@deedi.qld.gov.au)

Abstract

Eleale storeyi sp. n. is described from Northern Territory, Australia. A revised key to bicoloured species of *Eleale* Newman is presented.

Introduction

The most recent catalogue of world Cleridae (Corporaal 1950) listed 58 species of *Eleale* Newman (57 from Australia, one from New Zealand). Since Corporaal, two new species have been described (Winkler 1972) and one species synonymised (Ekis 1975). After viewing the type specimen of the New Zealand species *Eleale pantomelas* (Boisduval) (at the Muséum national d'Histoire naturelle, Paris) it is clear that it is not congeneric with the Australian *Eleale*, although its generic position shall not be addressed in this paper.

Most *Eleale* species are superficially similar-looking, unicoloured species that cannot be confidently identified using Elston's (1921) key. However, a handful of species with distinctive orange-coloured elytral patterns are relatively simple to identify (despite several flaws in Winkler's (1972) key to bicoloured species of *Eleale*). Although it would be unwise to describe any new unicoloured *Eleale* species outside of a complete generic revision, a new bicoloured species could be confidently described as new. In this paper I describe *E. storeyi* sp. n. and provide a revised key to bicoloured species of *Eleale*.

Materials and methods

Abbreviations are as follows: A – antennomere; BMNH – The Natural History Museum, London, United Kingdom; JSBC – J.S. Bartlett Collection, Indooroopilly, Queensland, Australia; QDPC – Queensland Primary Industries & Fisheries Collection, Indooroopilly, Queensland, Australia; QM – Queensland Museum, South Brisbane, Queensland, Australia.

Terminalia were prepared for examination by dislodging the whole abdomen from the metathorax, soaking it in a cold solution of 10% KOH for 24 hours, then transferring it to 100% alcohol in an excavated glass block; the terminalia were prised apart using fine entomological pins, examined, rinsed in Acetic Acid then again in distilled water, transferred to a glycerol-filled micro-vial and fixed to a pin below the adult beetle. Measurements were made using a scale reticule. Total length is the distance from the distal limit of the clypeus to the elytral apices.

Eleale storeyi sp. n.

(Figs 1-11)

Types. Holotype ♂, NORTHERN TERRITORY: Pine Creek, 23.xi.2007, B. Howton, ex. flowers of *Eucalyptus* sp. (QM, Reg. No. QMT 156350). *Paratypes*: 2 ♂♂, 117 km W Katherine, 25.xi.1979, R.I. Storey (QDPC); 1 ♀, same data as holotype (JSBC); 1 ♀, Mainoru Stn, 12.xii.[19]82, Walford-Huggins, ex collection A. Walford-Huggins, E. Gowing-Scope collection BMNH(E) 2005-4 (BMNH).

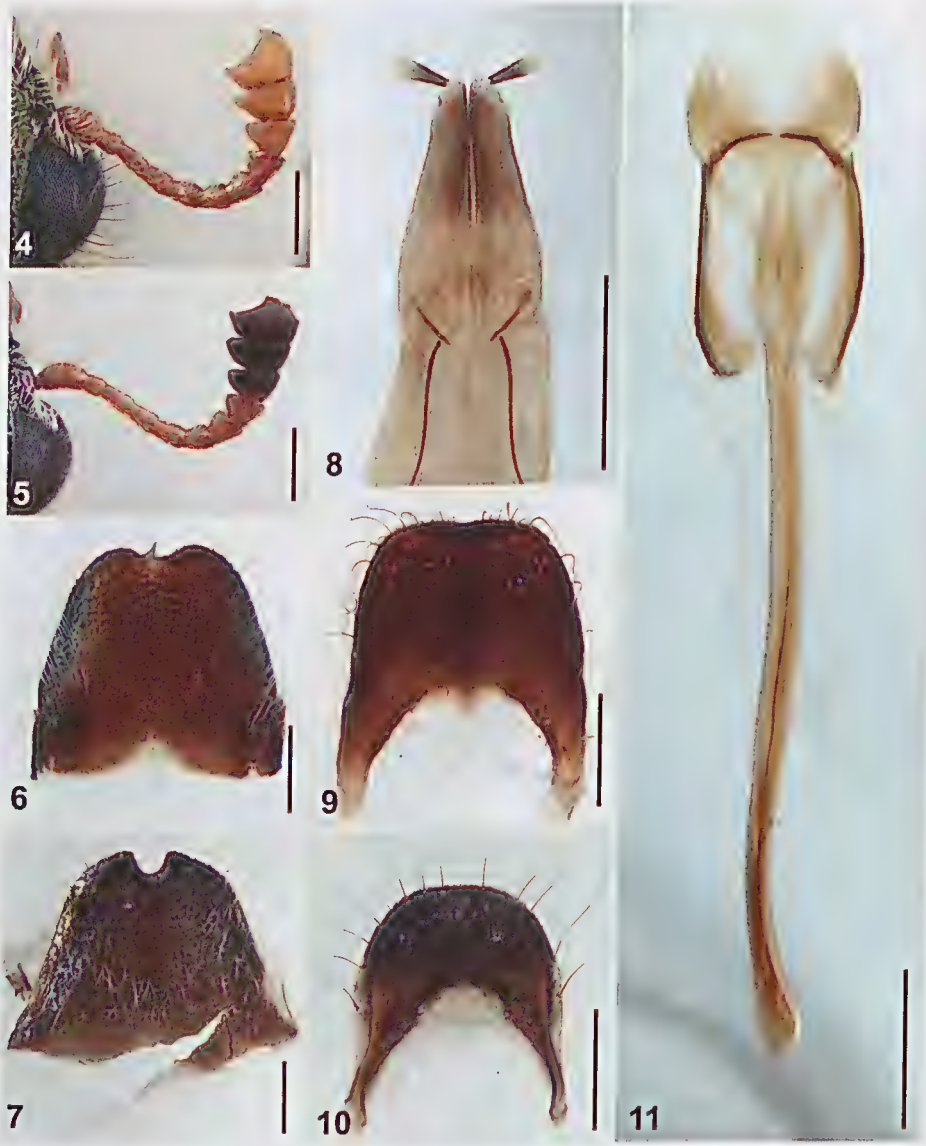
Diagnosis. Eleale storeyi is distinguished from other bicoloured *Eleale* by the following characters: mesotrochanters lacking broad tooth-like process; metacoxae lacking slender spines; terminal antennomeres obliquely truncated on inner distal edge (males more so than females); pronotal disc with regular circular punctation (not rugose); elytra yellowish-orange with metallic green to bronze maculations, a large central and apical macula plus a small humeral maculation (rarely absent); base of elytra (except humeri) without maculation.

Description. Length: Males: 9.1-9.4 mm; females: 9.9-11.8 mm.

Head. Bright metallic golden-green (holotype), bronze or purplish (paratypes); vertex and frons with dense, deep, circular punctations separated by less than their diameter; genae punctate to rugose behind eyes, smooth with transverse wrinkles near gula; gula darker than genae, smooth, gular sutures strongly convergent basally, parallel near middle; frons, ocular emargination and behind eye with thick white setae, vertex with finer yellowish setae; eyes separated by 2 eye widths; labrum, maxillae, labium and antennae orange to orange-brown (antennal club blackish in females); antennae (Figs 4-5) clavate, reaching middle of pronotum, scape bulbous, pedicel about half as long as scape, antennomeres increasing in thickness from A3 (slender filiform) to A8 (sub-cupuliform, almost club-like), terminal three antennomeres forming a moderately compact club, A9-10 cupuliform. A10 broader than A9, A11 as broad as A10, its inner distal edge deeply concave (concavity shallower in female specimens); terminal maxillary palpomeres sub-digitiform (though broadest apically), obliquely angulate distally; terminal labial palpomeres securiform, distal edges about 2.5 times longer than inner edges.

Thorax. Prothorax metallic green to golden-green or bronze to purplish; as long as wide, broadest just posterior to middle, lateral margins converging uniformly towards head in anterior two-thirds, more strongly constricted posteriorly; disc with a transverse depression before anterior margin, the depression slightly angled posteriorly towards middle, discal surface with dense circular punctation (punctations smaller at anterior margin) and vested with fine yellowish setae; ventral surface smooth, more densely with thicker white setae; prosternal process with triangular posterior dilation. Meso- and metathoracic sterna metallic green, blue or bronze, very thickly vested with white, decumbent, posteriorly directed, setae; surface densely impressed with

Figs 1-3. *Eleale storeyi* sp. n. (1) habitus of male holotype (length = 9.1 mm); (2) left elytron of male paratype from 117 km west of Katherine (length = 5.5 mm); (3) left elytron of female paratype from Mainoru Station (length = 6.4 mm).



Figs 4-11. *Eleale storeyi* sp. n. (4) right antenna, male; (5) right antenna, female; (6) fifth ventrite, male; (7) fifth ventrite, female; (8) apical part of ovipositor; (9) pygidium, male; (10) pygidium, female; (11) tegmen. Scale bars = 0.5 mm.

small punctures (mostly hidden by setae). Elytra approximately 2.3 times as long as wide, broadest as base, basal four-fifths tapering slightly inwards towards apices, apical one-fifth more strongly tapering; yellowish-orange, each elytron with a large metallic green to bronze central and apical

maculation (variable in shape and colour, see Figs 1-3), and a single small humeral macula (absent in one specimen); elytral disc with a dense compact matrix of sub-areolate punctation, and with short yellowish setae. Legs variable in colour (metallic green to purple, or non-metallic yellowish-orange), with pale erect setae; mesotrochanters without tooth-like processes; metacoxae without slender spines; femora very weakly swollen; tibiae slender, pro- and mesotibiae slighty curved posteriorly, metatibiae mostly straight, only curving near apical part; all tibiae with two longitudinal carinae, one along each internal and external face, and with two apical spurs; basitarsi conspicuous though less than half length of third tarsomeres, slightly emarginated dorsally.

Abdomen. Metallic blue, green or bronze; fifth ventrite with distal edge weakly emarginate in male (Fig. 6), conspicuously emarginate in female (Fig. 7); female ovipositor and pygidium as in Figs 8 and 10; male pygidium and tegmen as in Figs 9 and 11; basal four sternites with dense, white, decumbent, posteriorly directed, setae.

Etymology. Some years ago, Ross Storey, a man whom I had not yet met, generously and without question sent me a checklist of Australian Cleridae that he had compiled. At a time when I was finding my entomological feet, it was Ross's checklist that provided the initial structure that enabled me to begin researching the Australian clerid beetles. Later, upon meeting Ross in person, I realised that his generosity not only flowed in all directions, but also was just one facet of his extraordinary character. For these reasons I respectfully dedicate this new species to Ross Storey who, in November 1979, collected the first known specimens.

Revised key to bicoloured species of *Eleale*

1 Dorsal part of hind basitarsis almost as long as third tarsomere; mesotrochanters of males each with a broad tooth-like process 2

\- Dorsal part of hind basitarsis no longer than half the length of third tarsomere; mesotrochanters never with tooth-like process 3

2 Base of elytra orange ..... *E. apicalis* Macleay

\- Base of elytra not orange, dark ..... *E. sellata* Pascoe

3 Base of elytra orange; metacoxae without slender spines .... *E. storeyi* sp. n.

\- Base of elytra dark; each metacoxa (at least of males) with a slender spine 4

4 Apex of elytra orange ..... *E. lepida* Pascoe

\- Apex of elytra dark 5

5 Dark basal region of elytra shorter than orange region .... *E. fasciata* Macleay

- Dark basal region of elytra longer than orange region 6

6 Orange markings of elytra transversely fasciate (eastern Australian states) ..... *E. pulchra* (Newman)

- Orange markings of elytra ovate (Western Australia) .... *E. cuprea* Mjöberg

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